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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,377	12/19/2001	Michael D. Powers	KCX-388 (15998)	5411

7590 08/28/2003

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EXAMINER

BEFUMO, JENNA LEIGH

ART UNIT PAPER NUMBER

1771

DATE MAILED: 08/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/025,377	Applicant(s) POWERS ET AL.	
	Examiner Jenna-Leigh Befumo	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-17 and 20-40 is/are rejected.
- 7) ☒ Claim(s) 3,4,17,18,41 and 42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 5 – 8, 10, 11, 13 – 17, 20 – 22, 24, 26, 27, 29, 30, 32 – 37, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Gupta et al. (EP 0 761 846 A3).

Gupta et al. discloses a polymer composition for producing fibers comprising a polyolefin polymer and an internal hydrophobic polysiloxane (abstract). The hydrophobic fiber contains a olefin polymer, preferably polyethylene or polypropylene (page 5, line 1). The polysiloxane is an internal additive comprising about 0.01% to 10%, preferably 0.05% to 5%, by weight of the fiber composition (page 6, lines 8 – 13). Specifically, the examples teach using polydimethylsiloxane as the polysiloxane (Examples 1 – 6). Gupta et al. further teaches that the fibers can be used to form meltblown and spunbonded nonwoven fabrics (page 6, lines 28 – 29). Thus, claims 1, 2, 5 – 8, 13, and 14 are anticipated.

In example 1 the nonwoven fabric has a basis weight of 24 g/m², or about 0.7 osy. Therefore, claim 10 is anticipated.

Further, Gupta et al. teaches the fabric has a hydrostatic head of at least about 100 mm (page 8, lines 6 – 8). Therefore, claim 11 is anticipated.

Finally, Gupta et al. teaches that the nonwoven material produced with the fibers can be used as coverstock layer in absorbent products, medical barriers, and similar fabrics (page 2, lines 12 – 18). The coverstock layer would inherently be bonded to additional layers in the

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absorbent articles. Therefore, claims 15 – 17, 20 – 22, 24, 26, 27, 29, 30, 36, 37, and 40 are anticipated by Gupta et al. With respect to claims 32 – 35, these claims are rejected with claim 16 since the claims fail to recite any further structural limitations of the nonwoven fabric and instead, only recite the intended use of the fabric recited in claim 16.

Claim Rejections - 35 USC § 102/103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12 and 28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Gupta et al.

The features of Gupta et al. have been set forth above. Although Gupta et al. does not explicitly teach the limitations of resistance to blood penetration, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. polyolefin fibers with an internal polysiloxane component) and in the similar production steps (i.e. meltspinning the fibers to form a nonwoven web) used to produce the hydrophobic nonwoven fabric. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed limitation would obviously have been provided by the process disclosed by Gupta et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102. Thus claims 12 and 28 are rejected.

Claim Rejections - 35 USC § 103

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5. Claims 23, 31, and 37 – 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta et al. in view of Lickfield et al. (WO 95/15848).

The features of Gupta et al. have been set forth above. While Gupta et al. teaches that the fabric can be used in absorbent products and medical barriers, Gupta et al. fails to teach the structure of the other layers the hydrophobic polyolefin fibers are bonded to. Lickfield et al. discloses a composite nonwoven material made from two outer spunbond layers and a hydrophobic nonwoven microporous layer (abstract). Lickfield et al. teaches that medical barrier fabrics are typically made by combining two outer spunbond layers with a meltblown middle layer (a SMS fabric) to produce a material that combines the good barrier properties of the meltblown layer with the good strength and abrasion resistance properties of the spunbond layers (page 1, paragraph 2). The layers are typically thermally bonded together (page 1, lines 23 – 25). Therefore it would have been obvious to one of ordinary skill in the art to use the SMS structure taught by Lickfield et al. to produce a medical barrier fabric with good strength and abrasion as well as good barrier properties to various contaminants. Thus, claims 23, 31, and 37 – 39 are rejected.

6. Claims 1, 2, 5 – 7, 10 – 17, 20 – 23, and 26 – 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lickfield et al. in view of Gupta et al.

The features of Lickfield et al. and Gupta et al. have been set forth above. Lickfield et al. teaches using a SMS composite fabric with a middle layer comprising a hydrophobic microporous web, preferably a meltblown web. The layers are made from polyolefin materials. Lickfield et al. fails to teach using an internal hydrophobic component in the fibers to produce a hydrophobic material. Gupta et al. is drawn to hydrophobic polyolefin fibers. Gupta et al. teaches that using an internal hydrophobic component produces a finished product with has

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improved hydrophobicity and an improved lubricity (page 4, lines 2 – 3). The internal lubricant and hydrophobic agent is non-extractable (page 4, line 5 – 6). The fiber has an increased contact angle (page 4, lines 7 – 8). And, various finishes can be added to the nonwoven materials without compromising the hydrophobic nature of the fiber (page 7, lines 57 – 68). The fibers also bond better creating stronger fiber webs (column 8, lines 19 – 21). Gupta et al. teaches that the polymer can be used to create meltblown nonwoven fabrics. Therefore, it would have been obvious to one of ordinary skill in the art to substitute the meltblown hydrophobic polyolefin fabric taught by Gupta et al. for the meltblown layer taught by Lickfield et al. since Gupta et al. teaches the meltblown layer has improved hydrophobicity and lubricity which is non-extractable and produces stronger end products. Thus, claims 1, 2, 5 – 7, 10, 11, 13, 14, 16, 17, 20 – 23, 26, 27, 29 – 31, and 36 – 40 are rejected.

Although the limitations of resistance to blood penetration are not explicitly taught by Lickfield et al. or Gupta et al., it is reasonable to presume that said limitations would be met by the combination of the two references. Support for said presumption is found in the use of similar materials (i.e. polyolefin fibers with an internal hydrophobic component and an SMS barrier fabric) and in the similar production steps (i.e. spinning the polyolefin fibers to produce a meltblown barrier fabric combined with two spunbond layers) used to produce the barrier fabric. The burden is upon the Applicant to prove otherwise. Therefore, claims 12 and 28 are rejected.

Finally, claim 15 is rejected with claim 1 and claims 32 – 35 are rejected with claim 16 since these claims fail to add any further structure to the nonwoven fabric and instead only recite the intended use of the nonwoven fabric which is not given patentable weight at this time.

7. Claims 9 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gupta et al. in view of Jariwala et al. (6,586,522).

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The features of Gupta et al. have been set forth above. Gupta et al. fails to teach adding a fluoropolymer to the nonwoven fabric. Jariwala et al. is drawn to treatments for nonwoven fabrics. Jariwala et al. discloses that a fluoropolymer can be added to spunbonded or meltblown fabrics (column 15, lines 40 – 50) to impart repellency properties to the fabric (column 16, line 5 – 8). The fluoropolymer composition is added topically and imparts both water and oil repellency to the fabric. Therefore, it would have been obvious to one of ordinary skill in the art to add the fluoropolymer taught by Jariwala et al. to the fabric of Gupta et al. to make the fabric oil repellant and increase the water repellency of the fabric. Thus, claims 9 and 25 are rejected.

8. Claims 9 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Lickfield et al. in view of Gupta et al. as applied to claims 1 and 16 above, and in further view of Jariwala et al.

The features of Lickfield et al., Gupta et al., and Jariwala et al. have been set forth above. Lickfield et al. fails to teach adding a fluoropolymer to the SMS fabric. Jariwala et al. discloses that a fluoropolymer can be added to spunbonded, meltblown fabrics, or SMS fabrics (column 15, lines 40 – 60) to impart repellency properties to the fabric (column 16, line 5 – 8). The fluoropolymer composition is added topically and imparts both water and oil repellency to the fabric. Therefore, it would have been obvious to one of ordinary skill in the art to add the fluoropolymer taught by Jariwala et al. to the fabric of Lickfield et al. to make the fabric oil repellant and increase the water repellency of the fabric. Thus, claims 9 and 25 are rejected.

Allowable Subject Matter

9. Claims 3, 4, 18, 19, 41, and 42 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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10. The following is a statement of reasons for the indication of allowable subject matter:

The prior art fails to teach or fairly suggest adding guerbet esters, particularly trioctyldodecylcitrate, to nonwoven webs to produce a hydrophobic fabric. While the prior art does teach that guerbet esters are surfactants, these surfactants are used in cleaning composition and soap bars and not as a hydrophobic coating applied onto or within a fabric. Thus, there is no suggestion in the prior art to use guerbet esters as an internal hydrophobic agent. Therefore, claims 3, 4, 18, 19, 41, and 42 contain allowable subject matter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (703) 605-1170. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jenna-Leigh Befumo
August 20, 2003



CHERYL A. JUSKA
PRIMARY EXAMINER